



B.4 WSSRAP

A bubble chart, at the MTU level of recycled uranium, representing the flows from WSSRAP has been developed based on the information presented in the Tables, following the bubble chart. The Tables for shipments have been developed at the uranium and uranium-235 level (grams for enriched uranium and kilograms for the normal and depleted uranium). The Tables include all years, however, only the recycled uranium is included in the bubble charts. Table ES-1 highlights the differences between the Total Shipments and the Recycled Uranium Shipments. Additional detail is summarized in Section 3.1 of this report.

B.4.1 MATERIAL BALANCE DATA SOURCES

The data source used to develop the WSSRAP historical receipts and shipments was obtained from a DOE-ORO report, DOE/OR-872, published in 1986.

The data summaries and annual material balances contained in the report originate from two primary sources: (1) data compilations and their associated workpapers prepared by DOE employees, and (2) monthly material balance reports provided to DOE by the operating contractor, Mallinckrodt Chemical Works. While cumulative data are available, some annual data sets from these two sources for the period 1957 through 1966 are not available.

Data search activities included: (1) two thorough searches of retired DOE files retained in Oak Ridge, Tennessee, (2) an inspection of the files retained at the WSSRAP, (3) contacts with the U.S. Government Records Center at Winnebago Street, St. Louis, Missouri, and (4) reviews of active DOE files. Only items (1) and (4) produced usable information, and all of the information from these two sources has been compiled and stored by DOE in Oak Ridge, TN. This information is in the form of contractor-generated material balance reports, Doe-generated nuclear material control survey reports, and workpaper packages that support some of the surveys. It is evident from federal records destruction instructions and information from all other sources that the information now in active DOE files is, in all probability, the only quantitative nuclear materials data still available.

Since this report did not specify, by name, the sites that WSSRAP received from and shipped to, the DOE-OH Recycled Uranium Project Report team quantified WSSRAP receipts and shipments using material flow information from Fernald. This process results in the WSSRAP receipts and shipments being distributed to FEMP and other sites.



B.4.2 MATERIAL BALANCE DATA PRESENTATION AND DISCUSSION

All nuclear materials transactions were recorded by the operating contractor and reported monthly to DOE. These records of transactions (receipts and shipments) along with records of intra-plant inventories and plant discards were reviewed and evaluated by DOE nuclear materials control groups on a continuing basis.

Annual audits of all nuclear materials holdings were performed by DOE employees as an independent survey/check of the contractor's accountability program. These evaluations and audits addressed each of the four nuclear materials stored and/or processed at the plant site. The data available on each of these nuclear materials are presented and discussed in this section.

Material Types

Natural Uranium

Natural uranium (0.72 weight % U-235) was typically received as an ore concentrate in drums and similar containers. The uranium content of such receipts was determined by carefully controlled sampling and analytical procedures. Significant receiver-shipper differences were resolved by referee analyses at other locations. While the concentrates were generally homogenous and analytical methods were generally sound, some small variances were common. However, these variances were observed to be of a random nature and, therefore, are believed to have had minimal effect on assigned values.

Depleted Uranium

Uranium depleted in U-235 content to the levels below that of natural uranium was received as metal and various intermediate chemical forms. For reasons of safety, efficiency, and economy, this material (which is identical to natural uranium in chemical and physical properties but of lower intrinsic value than natural uranium) was used primarily in pilot plant tests of possible plant flow sheet changes and manufacturing methods improvements.

Slightly Enriched Uranium

Uranium having a U-235 content (typically 0.95 weight % U-235) slightly above that of natural uranium (0.72 weight % U-235) was received as scrap metal and residues and was processed on a batch basis to produce a pure product that was then shipped to other DOE contractors. Receiver-shipper differences for the incoming scrap and residues were, sometimes, contributing factors for some of the plant inventory differences.



Discards

The annual stack discard (atmospheric discharge) values were engineering estimates derived from airflows and other process factors along with stack monitoring data. Because of the large volume of natural uranium processed in all plant facilities, it accounted for about 94 % of the total stack discards of 45,041 Kgs (all uranium), or 12 Kgs per day during the operational life of the plant. The chemical and physical forms of such releases varied but were essentially oxides of uranium (or their equivalents). Period area monitoring data indicates little material was detected off-site.

Three sewer systems served the plant: sanitary, storm, and process. Treated sanitary sewage releases and releases from storm sewers were released routinely to designated drainageways with flow-rate measurements and proportional analyses performed as appropriate. Process sewers were monitored continuously and effluents were diluted as necessary to ensure compliance with applicable discharge limits.

From 1958 to 1964, a series of four raffinate pits with a combined surface area of about 26 acres and a combined volume capacity of 650,000 cubic yards were constructed to receive refinery sludge. The volume of waste placed in these pits is estimated to be 220,000 cubic yards. All discards to the raffinate pits were measured. The residues in the pits remain covered with rainwater most of the time until their processing during site remediation in the late 1990s. The recorded quantities of nuclear materials placed there annually have been documented.

Inventory Differences

The DOE has specified accounting requirements for nuclear materials which it handles. Differences between the amounts of nuclear materials charged to DOE facilities and the amounts physically inventoried have been reported and explained semi-annually by DOE since October 1, 1976. The WSSRAP nuclear materials balances and inventories, while, according to records, were analyzed, and, where necessary, investigated and resolved, they have not been reported previously. The inventory differences between "book" and physical inventories and are variances obtained when book and physical inventories are drawn and compared. These differences are not to be construed as being necessarily real figures but, rather, the quotient obtained when book and physical inventories are treated of equal validity in the formula:

$$\frac{(\text{Beginning Inventory} + \text{Receipts}) - (\text{Ending Inventory} + \text{Removals})}{(\text{Beginning Inventory} + \text{Receipts})} \times 100 =$$



Book values as used here represent measured and/or accepted values (shipper values were sometimes accepted by DOE on contractual or other bases) and recorded in ledgers. Similarly, inventory values were sometimes a mixture of measured and accepted values.

Efforts to remove all nuclear materials from the plant site at shutdown were apparently generally successful. However, small quantities, not included in recorded inventories and removals, were found after shutdown and may continue to be found in the future. Such quantities, if now included, would reduce observed inventory differences, but only marginally so. Therefore, their exclusion from formal accountability records is believed to be insignificant.

REFERENCES:

U.S. DOE ORO, July 1986, "Historical Nuclear Materials Balance Report For The Former AEC Owned Weldon Spring Chemical Plant, Weldon Spring, Missouri," DOE/OR-872, DOE-ORO, Oak Ridge, TN.

FIGURE B.1-10
WELDON SPRING RECEIPTS & SHIPMENTS
ENRICHED URANIUM

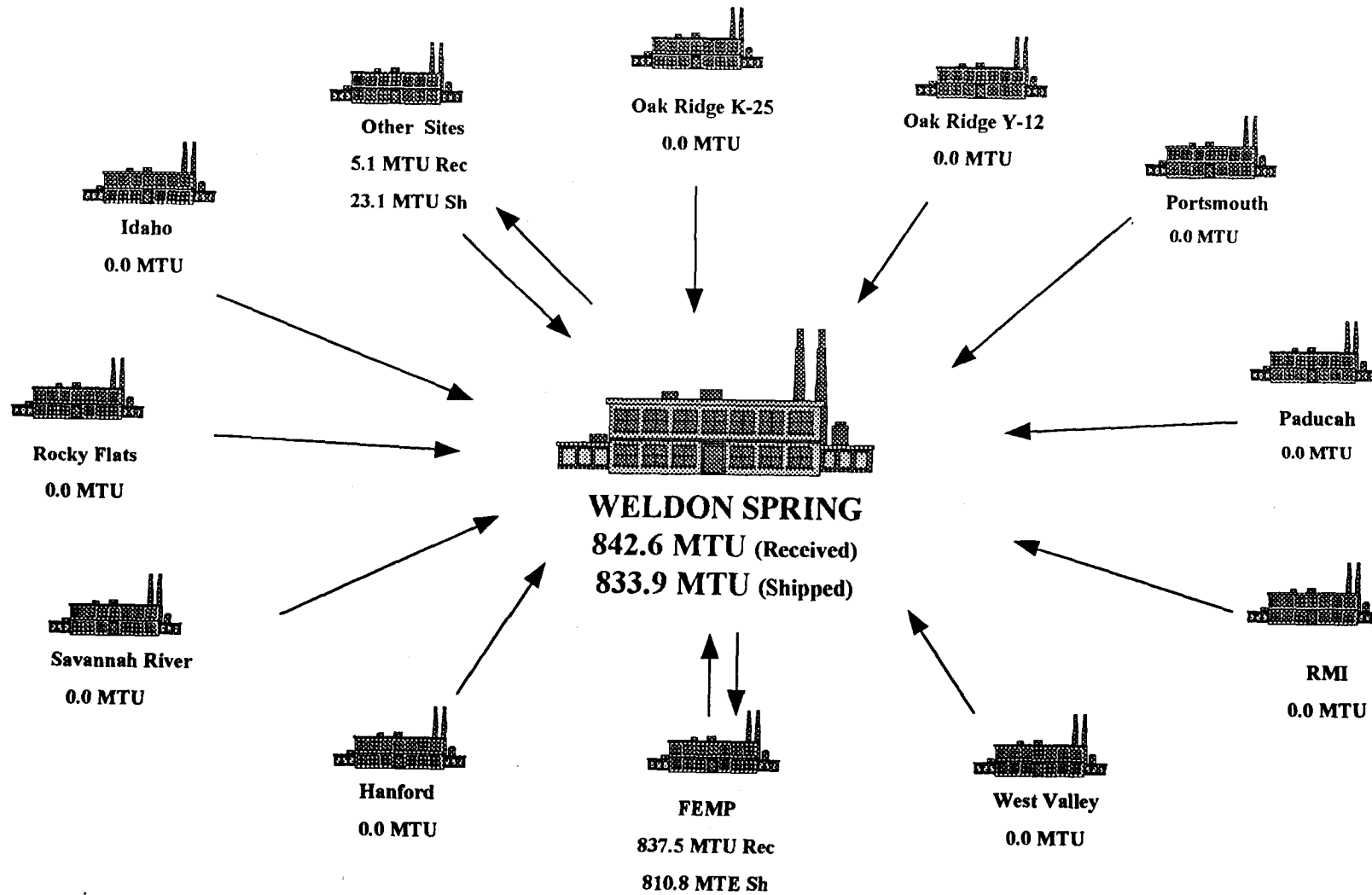


FIGURE B.1-11
WELDON SPRING RECEIPTS & SHIPMENTS

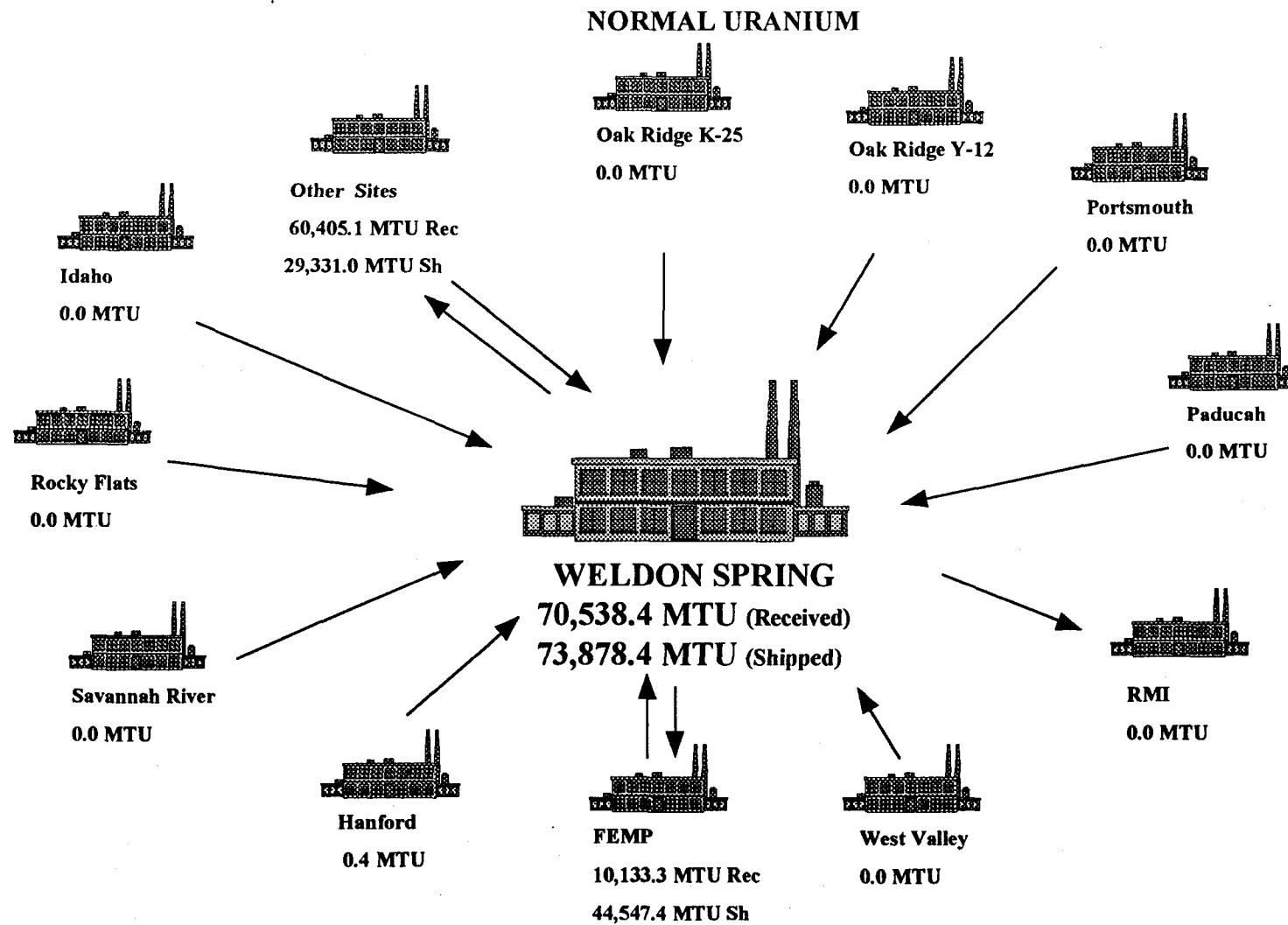
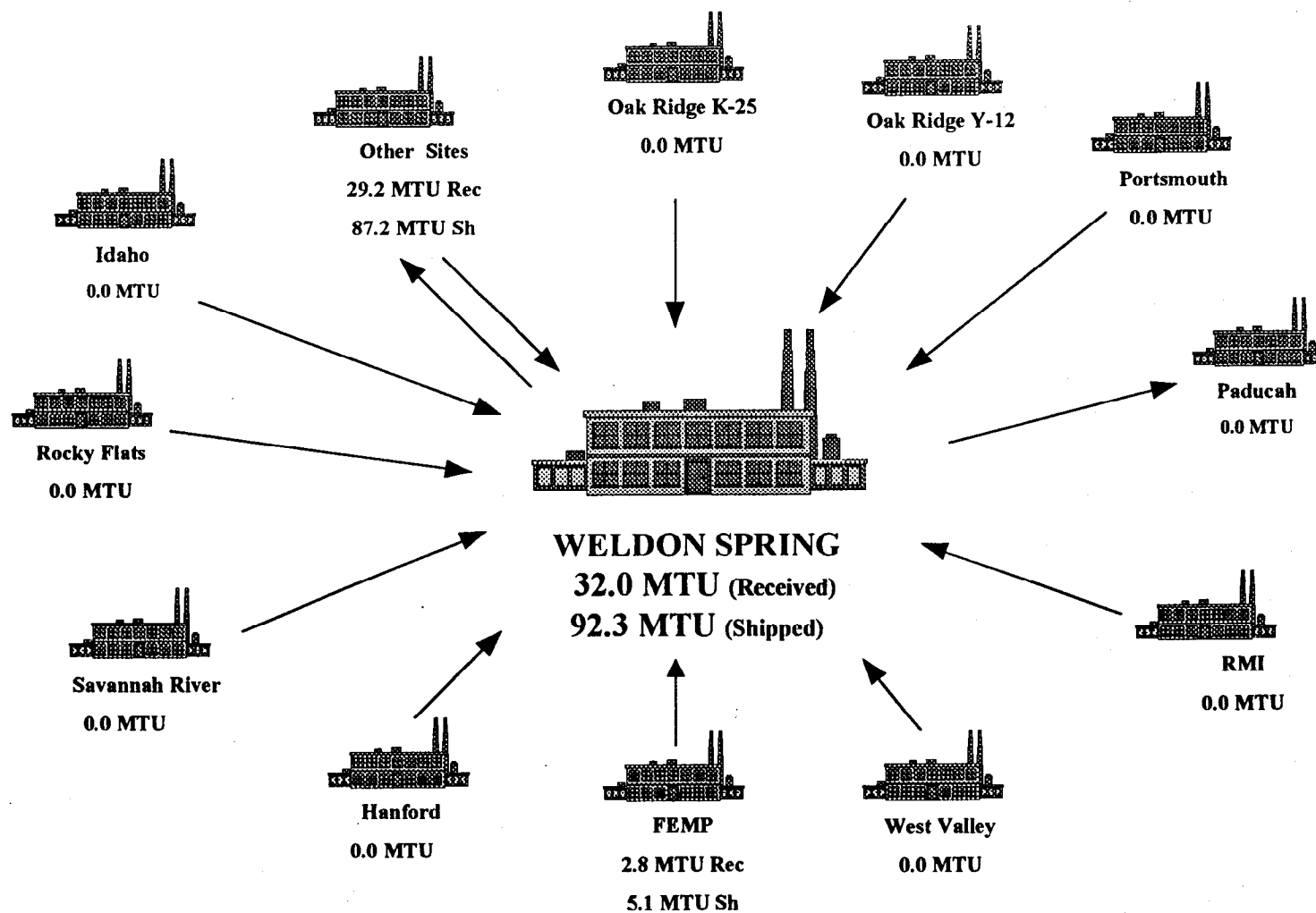


FIGURE B.1-12
WELDON SPRING RECEIPTS &
SHIPMENTS
DEPLETED URANIUM



APPENDIX B.4
WELDON SPRING ENRICHED SHIPMENTS SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM	FY1952-FY1959		FY1960-FY1969		FY1970-FY1979		FY1980-FY1989		FY1990-FY1999		TOTAL	
SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
Pu PROCESSING PLANTS	-	-	-	-	-	-	-	-	-	-	-	-
GASEOUS DIFFUSION PLANTS	-	-	-	-	-	-	-	-	-	-	-	-
WEAPONS PLANTS	-	-	-	-	-	-	-	-	-	-	-	-
U PROCESSING PLANTS	-	-	810,865,718	7,581,220	-	-	-	-	-	-	810,865,718	7,581,220
OTHER SITES	-	-	23,115,982	231,160	-	-	-	-	-	-	23,115,982	231,160
TOTAL	-	-	833,981,700	7,812,380	-	-	-	-	-	-	833,981,700	7,812,380

* INCLUDES SCRAP NOT PROCESSED

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM	FY1952		FY1953		FY1954		FY1955		FY1956		FY1957		FY1958		FY1959		FY1960		FY1961		FY1962	
SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS
SUMMARIZED

*RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM*

EXTERNAL SHIPMENTS ENRICHED URANIUM	FY1963		FY1964		FY1965		FY1966		FY1967		FY1968		FY1969		FY1970	
SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	56,731,200	537,787	10,881,100	106,225	702,721,600	6,578,923	4,897,186	42,128	35,634,632	316,157	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	10,353,400	103,534	4,357,900	43,579	8,284,600	82,846	91,014	910	29,068	291	-	-	-	-	-	-
TOTAL	67,084,600	641,321	15,239,000	149,804	711,006,200	6,661,769	4,988,200	43,038	35,663,700	316,448	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM	FY1971		FY1972		FY1973		FY1974		FY1975		FY1976		FY1976A		FY1977		FY1978		FY1979		FY1980		FY1981	
SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KRM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS
SUMMARIZED

*RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM*

EXTERNAL SHIPMENTS ENRICHED URANIUM	FY1982		FY1983		FY1984		FY1985		FY1986 FVA		FY1986 FVC		FY1987		FY1988		FY1989		FY1990		FY1991		FY1992	
SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM	FY1993		FY1994		FY1995		FY1996		FY1997		FY1998		FY1999		TOTAL	
SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810,865,718	7,581,220
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,115,982	231,160
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	833,981,700	7,812,380

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM		FY1952		FY1953		FY1954		FY1955		FY1956		FY1957		FY1958		FY1959		FY1960		FY1961		FY1962	
RIS	SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
FVA	FEMP (NLO)	FEMP																					
FVC	FEMP (WEMCO)	FEMP																					
	WELDON SPRING DISCARDS	OTHER																					
	OTHER SITES	OTHER																					
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM		FY1963		FY1964		FY1965		FY1966		FY1967		FY1968		FY1969	
RIS	SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
FVA	FEMP (NLO)	56,731,200	537,787	10,881,100	106,225	702,721,600	6,578,923	4,897,186	42,128	35,634,632	316,157				
FVC	FEMP (WEMCO)														
	WELDON SPRING DISCARDS	-	-	-	-	4,107,000	41,070	(20,000)	(200)	-	-				
	OTHER SITES	10,353,400	103,534	4,357,900	43,579	4,177,600	41,776	111,014	1,110	29,068	291				
TOTAL		67,084,600	641,321	15,239,000	149,804	711,006,200	6,661,769	4,988,200	43,038	35,663,700	316,448	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM		FY1970		FY1971		FY1972		FY1973		FY1974		FY1975		FY1976		FY1976A		FY1977		FY1978		FY1979	
RIS	SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
FVA	FEMP (NLO)																						
FVC	FEMP (WEMCO)																						
	WELDON SPRING DISCARDS																						
	OTHER SITES																						
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM		FY1980		FY1981		FY1982		FY1983		FY1984		FY1985		FY1986 FVA		FY1986 FVC		FY1987		FY1988		FY1989	
RIS	SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
FVA	FEMP (NLO)																						
FVC	FEMP (WEMCO)																						
	WELDON SPRING DISCARDS																						
	OTHER SITES																						
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM		FY1990		FY1991		FY1992		FY1993		FY1994		FY1995		FY1996		FY1997		FY1998	
RIS	SITE	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS	U GMS	U-235 GMS
FVA	FEMP (NLO)																		
FVC	FEMP (WEMCO)																		
	WELDON SPRING DISCARDS																		
	OTHER SITES																		
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING ENRICHED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF ENRICHED URANIUM

EXTERNAL SHIPMENTS ENRICHED URANIUM		FY1999		TOTAL	
RIS	SITE	U GMS	U-235 GMS	U GMS	U-235 GMS
FVA	FEMP (NLO)			810,865,718	7,581,220
FVC	FEMP (WEMCO)			-	-
	WELDON SPRING DISCARDS			4,087,000	40,870
	OTHER SITES			19,028,982	190,290
TOTAL		-	-	833,981,700	7,812,380

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL (NATURAL) URANIUM	FY1952-FY1961	FY1962-FY1969	FY1970-FY1979	FY1980-FY1989	FY1990-FY1999	TOTAL
SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
Pu PROCESSING PLANTS *	-	-	-	-	-	-
GASEOUS DIFFUSION PLANTS	-	-	-	-	-	-
WEAPONS PLANTS	-	-	-	-	-	-
U PROCESSING PLANTS	-	44,547,390	-	-	-	44,547,390
OTHER SITES	48,022,798	29,331,057	-	-	-	77,353,855
TOTAL	48,022,798	73,878,447	-	-	-	121,901,245

* INCLUDES SCRAP NOT PROCESSED

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL (NATURAL) URANIUM	FY1952	FY1953	FY1954	FY1955	FY1956	FY1957	FY1958	FY1959	FY1960	FY1961	FY1962	FY1963	FY1964	FY1965
SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	4,239,454	8,350,822	6,538,739	4,980,219
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	6,075,343	11,924,292	14,261,259	15,761,904	11,620,527	8,476,042	8,955,099	15,587
TOTAL	-	-	-	-	-	-	6,075,343	11,924,292	14,261,259	15,761,904	15,859,981	16,826,864	15,493,838	4,995,806

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL (NATURAL) URANIUM	FY1966	FY1967	FY1968	FY1969	FY1970	FY1971	FY1972	FY1973	FY1974	FY1975	FY1976	FY1976A	FY1977	FY1978	FY1979	FY1980	FY1981
SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	3,832,421	16,605,735	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	198,084	65,718	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	4,030,505	16,671,453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL (NATURAL) URANIUM	FY1982	FY1983	FY1984	FY1985	FY1986 FVA	FY1986 FVC	FY1987	FY1988	FY1989	FY1990	FY1991	FY1992	FY1993	FY1994	FY1995 FVC	FY1995 GVC
SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL (NATURAL) URANIUM	FY1996	FY1997	FY1998	FY1999	TOTAL
SITE	U KGS	U KGS	U KGS	U KGS	U KGS
OAK RIDGE K-25	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-
FERNALD	-	-	-	-	44,547,390
RMI	-	-	-	-	-
WEST VALLEY	-	-	-	-	-
WELDON SPRING	-	-	-	-	-
HANFORD	-	-	-	-	-
SAVANNAH RIVER	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-
IDAHO	-	-	-	-	-
OTHER SITES	-	-	-	-	77,353,855
TOTAL	-	-	-	-	121,901,245

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL URANIUM			FY1952	FY1953	FY1954	FY1955	FY1956	FY1957	FY1958	FY1959	FY1960	FY1961	FY1962	FY1963
RIS	SITE		U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
FVA	FEMP (NLO)	FEMP											4,239,454	8,350,822
FVC	FEMP (WEMCO)	FEMP												
	WELDON SPRING DISCARDS	OTHER									56,865	26,163	20,335	32,022
	OTHER SITES	OTHER							6,075,343	11,924,292	14,204,394	15,735,741	11,600,192	8,444,020
TOTAL			-	-	-	-	-	-	6,075,343	11,924,292	14,261,259	15,761,904	15,859,981	16,826,864

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS

*RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM*

EXTERNAL SHIPMENTS NORMAL URANIUM		FY1964	FY1965	FY1966	FY1967	FY1968	FY1969	FY1970	FY1971	FY1972	FY1973	FY1974	FY1975	FY1976	FY1976A	FY1977
RIS	SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
FVA	FEMP (NLO)	6,538,739	4,980,219	3,832,421	16,605,735											
FVC	FEMP (WEMCO)															
	WELDON SPRING DISCARDS	45,965	18,523	23,636	334											
	OTHER SITES	8,909,134	(2,936)	174,448	65,384											
TOTAL		15,493,838	4,995,806	4,030,505	16,671,453	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL URANIUM		FY1978	FY1979	FY1980	FY1981	FY1982	FY1983	FY1984	FY1985	FY1986 FVA	FY1986 FVC	FY1987	FY1988	FY1989	FY1990	FY1991	FY1992
RIS	SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
FVA	FEMP (NLO)																
FVC	FEMP (WEMCO)																
	WELDON SPRING DISCARDS																
	OTHER SITES																
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING NORMAL (NATURAL) URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF NORMAL (NATURAL) URANIUM

EXTERNAL SHIPMENTS NORMAL URANIUM		FY1993	FY1994	FY1995	FY1996	FY1997	FY1998	FY1999	TOTAL
RJS	SITE	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS	U KGS
FVA	FEMP (NLO)								44,547,390
FVC	FEMP (WEMCO)								-
	WELDON SPRING DISCARDS								223,843
	OTHER SITES								77,130,012
TOTAL		-	-	-	-	-	-	-	121,901,245

APPENDIX B.4
WELDON SPRING DEPLETED SHIPMENTS SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
RECEIPTS OF DEPLETED URANIUM

EXTERNAL RECEIPTS DEPLETED URANIUM	FY1952-FY1961		FY1962-FY1969		FY1970-FY1979		FY1980-FY1989		FY1990-FY1999		TOTAL	
SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
Pu PROCESSING PLANTS	-	-	-	-	-	-	-	-	-	-	-	-
GASEOUS DIFFUSION PLANTS	-	-	-	-	-	-	-	-	-	-	-	-
WEAPONS PLANTS	-	-	-	-	-	-	-	-	-	-	-	-
U PROCESSING PLANTS	-	-	5,148	11	-	-	-	-	-	-	5,148	11
OTHER SITES	75,460	151	87,216	174	-	-	-	-	-	-	162,676	325
TOTAL	75,460	151	92,364	185	-	-	-	-	-	-	167,824	336

* INCLUDES SCRAP NOT PROCESSED

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM	FY1952		FY1953		FY1954		FY1955		FY1956		FY1957		FY1958		FY1959		FY1960		FY1961	
SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,525	11	13,081	26	56,854	114
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,525	11	13,081	26	56,854	114

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS .
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM	FY1962		FY1963		FY1964		FY1965		FY1966		FY1967		FY1968		FY1969		FY1970		FY1971	
SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	1,779	5	-	-	-	-	-	-	-	-	3,369	6	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	80,795	162	-	-	19	-	-	-	6,402	13	-	-	-	-	-	-	-	-	-	-
TOTAL	82,574	167	-	-	19	-	-	-	6,402	13	3,369	6	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM	FY1972		FY1973		FY1974		FY1975		FY1976		FY1976A		FY1977		FY1978		FY1979		FY1980	
SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM	FY1981		FY1982		FY1983		FY1984		FY1985		FY1986 FVA		FY1986 FVC		FY1987		FY1988		FY1989	
SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM	FY1990		FY1991		FY1992		FY1993		FY1994		FY1995		FY1996		FY1997		FY1998	
SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
OAK RIDGE K-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OAK RIDGE Y-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FERNALD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEST VALLEY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WELDON SPRING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HANFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAVANAH RIVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROCKY FLATS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER SITES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS
SUMMARIZED

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM SITE	FY1999		TOTAL	
	U KGS	U-235 KGS	U KGS	U-235 KGS
OAK RIDGE K-25	-	-	-	-
OAK RIDGE Y-12	-	-	-	-
PORTSMOUTH GASEOUS DIFFUSION PLANT	-	-	-	-
PADUCAH GASEOUS DIFFUSION PLANT	-	-	-	-
FERNALD	-	-	5,148	11
RMI	-	-	-	-
WEST VALLEY	-	-	-	-
WELDON SPRING	-	-	-	-
HANFORD	-	-	-	-
SAVANAH RIVER	-	-	-	-
ROCKY FLATS	-	-	-	-
IDAHO	-	-	-	-
OTHER SITES	-	-	162,676	325
TOTAL	-	-	167,824	336

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM			FY1952		FY1953		FY1954		FY1955		FY1956		FY1957		FY1958		FY1959		FY1960		FY1961	
RIS	SITE		U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
FVA	FEMP (NLO)	FEMP																				
	WELDON SPRING DISCARDS	FEMP																				
MISC	OTHER SITES	OTHER													-	-	5,525	11	13,081	26	56,854	114
TOTAL			-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,525	11	13,081	26	56,854	114

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM		FY1962		FY1963		FY1964		FY1965		FY1966		FY1967		FY1968		FY1969		FY1970		FY1971		FY1972	
RIS	SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
FVA	FEMP (NLO)	1,733	5									3,369	6										
	WELDON SPRING DISCARDS	46	-																				
MISC	OTHER SITES	80,795	162	-	-	19	-	-	-	6,402	13	-	-										
TOTAL		82,574	167	-	-	19	-	-	-	6,402	13	3,369	6	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS

*RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM*

EXTERNAL SHIPMENTS DEPLETED URANIUM		FY1973		FY1974		FY1975		FY1976		FY1976A		FY1977		FY1978		FY1979		FY1980		FY1981		FY1982		FY1983	
RIS	SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
FVA	FEMP (NLO)																								
	WELDON SPRING DISCARDS																								
MISC	OTHER SITES																								
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM		FY1984		FY1985		FY1986 FVA		FY1986 FVC		FY1987		FY1988		FY1989		FY1990		FY1991		FY1992		FY1993		FY1994	
RIS	SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
FVA	FEMP (NLO)																								
	WELDON SPRING DISCARDS																								
MISC	OTHER SITES																								
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B.4
WELDON SPRING DEPLETED URANIUM SHIPMENTS

RECYCLED URANIUM PROJECT
WELDON SPRING HISTORICAL DATA
SHIPMENTS OF DEPLETED URANIUM

EXTERNAL SHIPMENTS DEPLETED URANIUM		FY1995		FY1996		FY1997		FY1998		FY1999		TOTAL	
RIS	SITE	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS	U KGS	U-235 KGS
FVA	FEMP (NLO)											5,102	11
	WELDON SPRING DISCARDS											46	-
MISC	OTHER SITES											162,676	325
TOTAL		-	-	-	-	-	-	-	-	-	-	167,824	336